

INTERNATIONAL SEARCH REPORT

International Application No
PCT/FR2004/003091

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H01L27/10 H01L27/102 H01L27/112 H01L21/8246 H01L23/525
H01L23/532

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H01L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 464 989 A (MORI SHINICHI ET AL) 7 November 1995 (1995-11-07)	7
A	column 11, line 53 - column 13, line 15; figure 1	1-6
X	US 5 580 809 A (MORI ET AL) 3 December 1996 (1996-12-03)	7
A	column 7, line 61 - column 9, line 44 column 11, line 57 - column 13, line 19; figure 1	1-6
A	US 6 121 688 A (AKAGAWA MASATOSHI) 19 September 2000 (2000-09-19) cited in the application column 4, line 1 - column 6, line 43; figures 1-5	1-7
	----- -/-	



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

14 April 2005

Date of mailing of the international search report

29/04/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Neumann, A

INTERNATIONAL SEARCH REPORT

International Application No

PCT/FR2004/003091

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 734 065 A (SHINKO ELECTRIC INDUSTRIES CO. LTD) 25 September 1996 (1996-09-25) column 3, line 19 - column 6, line 26; figures 1-5	1-7
A	EP 0 786 808 A (SHINKO ELECTRIC INDUSTRIES CO. LTD) 30 July 1997 (1997-07-30) column 4, line 26 - column 7, line 33; figures 1-5	1-7
A	US 6 055 180 A (GUDESEN HANS GUDE ET AL) 25 April 2000 (2000-04-25) cited in the application column 7, line 6 - column 10, line 36; claims 1,2,10; figures 1-5	1-7
A	US 4 396 998 A (HUNT ROBERT N ET AL) 2 August 1983 (1983-08-02) column 1, line 9 - column 6, line 5; claim 1; figures 1-3	1-7

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/FR2004/003091

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5464989	A	07-11-1995	US 5580809 A DE 4205044 A1 JP 2791522 B2 JP 5082757 A KR 9610736 B1	03-12-1996 20-08-1992 27-08-1998 02-04-1993 07-08-1996
US 5580809	A	03-12-1996	US 5464989 A DE 4205044 A1 JP 2791522 B2 JP 5082757 A KR 9610736 B1	07-11-1995 20-08-1992 27-08-1998 02-04-1993 07-08-1996
US 6121688	A	19-09-2000	JP 3549316 B2 JP 8330356 A DE 69711735 D1 DE 69711735 T2 EP 0786808 A1 US 5886415 A	04-08-2004 13-12-1996 16-05-2002 21-11-2002 30-07-1997 23-03-1999
EP 0734065	A	25-09-1996	DE 69621863 D1 DE 69621863 T2 EP 0734065 A2 JP 3569585 B2 JP 8330355 A JP 3549316 B2 JP 8330356 A KR 218996 B1 US 5677576 A	25-07-2002 21-11-2002 25-09-1996 22-09-2004 13-12-1996 04-08-2004 13-12-1996 01-09-1999 14-10-1997
EP 0786808	A	30-07-1997	JP 3549316 B2 JP 8330356 A DE 69711735 D1 DE 69711735 T2 EP 0786808 A1 US 6121688 A US 5886415 A	04-08-2004 13-12-1996 16-05-2002 21-11-2002 30-07-1997 19-09-2000 23-03-1999
US 6055180	A	25-04-2000	AT 237182 T AU 735299 B2 AU 8359698 A CA 2294834 A1 CN 1267389 A DE 69813218 D1 DE 69813218 T2 DK 990235 T3 EP 0990235 A2 ES 2196585 T3 JP 3415856 B2 JP 2001503183 T NO 990617 A WO 9858383 A2 RU 2182732 C2	15-04-2003 05-07-2001 04-01-1999 23-12-1998 20-09-2000 15-05-2003 25-03-2004 28-04-2003 05-04-2000 16-12-2003 09-06-2003 06-03-2001 10-02-1999 23-12-1998 20-05-2002
US 4396998	A	02-08-1983	CA 1171175 A1	17-07-1984